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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,727

09/09/2003

Jeyhan Karaoguz

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04/16/2008

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SUITE 3400

CHICAGO, IL 60661

EXAMINER

PARK, JUNG H

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

04/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/658,727

**Applicant(s)**

KARAOGUZ ET AL.

**Examiner**

JUNG PARK

**Art Unit**

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Remark***

1. This communication is considered fully responsive to the Amendment filed on 01/14/2008.
  - a. The Examiner acknowledges that RCE has been filed for reconsideration.
  - b. The independent claims 1, 11, and 21 have been changed.
  - c. 103 rejections are applied to the amended independent claims as a new ground of rejections.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2004/0039817, "Lee") in view of Schmidt (US 7058040, "Schmidt").

**Regarding claims 1 and 21,** Lee discloses a method [and a system] for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:

- determining a protocol (selecting one of 802.11 family protocols, see 110-114 fig.1 and ¶.29) associated with a communication signal for an access point (AP) (signal associated with AP, see ¶.29);

Lee lacks what Schmidt discloses, "allocating a processor within the access point (dedicated CPU and digital signal processor, which are in a wireless communicator

device, configured to operate optimally on specific problem, see col.5, ln.38-40 and ln.51-66) the processor compatible with the determined protocol (a bank of DSPs with embedded functions); and processing the communication signal by the allocated processor (number of active processor is controlled depending on the application, see col.5, ln.64-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a dedicated digital signal processor (DSP) for specific function/protocol of Schmidt into the access point of Lee in order for the number of active processors to be controlled depending on the application so that power is not used when it is not need for system efficiency since DSP is designed for containing architectural optimizations to speed up processing. These optimizations are also important to lower costs, heat-emission and power-consumption.

Regarding claim 2, Lee discloses, "further comprising selecting the allocated processor from a pool of available processors for the processing of the communication signal (110-114 fig.1)."

Regarding claim 3, Lee discloses, "wherein the allocating further comprises updating the processor to be capable of the processing of the communication signal (122 fig.1)."

Regarding claim 4, Lee discloses, "wherein the updating further comprises downloading protocol code compatible with the determined protocol to the processor (inherent to access one of 802.11 protocols, see ¶.29)."

Regarding claim 5, Lee discloses, "further comprising storing the compatible protocol code in a memory (inherent to save the protocol code in a not shown memory, see fig.1 and ¶.29)."

Regarding claim 6, Lee discloses, "wherein the downloading further comprises retrieving the compatible protocol code from a portion of the memory (retrieve to configure, see ¶.29)."

Regarding claim 7, Lee discloses, "further comprising associating the determined protocol code with the portion of the memory (store obtained information, see ¶.35)."

Regarding claim 8, Lee lacks what Schmidt discloses, "further comprising tuning at least one transceiver device to at least one of a receive and a transmit frequency associated with the communication signal (col.4, ln.4-16)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a transceiver taught by Schmidt into the system of Lee in order to tune a transmit frequency for better/optimum performance.

Regarding claim 9, Lee lacks what Schmidt discloses, "wherein the processor is a digital signal processor (DSP) (153 fig.2A and col.5, ln.51-56)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a DSP taught by Schmidt into the system of Lee in order to have embedded

functions in the DSP since DSP is a special-purpose CPU used for digital signal processing applications to provide ultra-fast instruction sequences.

Regarding claim 10, Lee discloses, "wherein the protocol is one of an 802.11a, 802.11b, 802.11g and Bluetooth protocol (¶1.11)."

**Regarding claim 11**, it is a claim corresponding to claim 1, except the limitation of "computer-readable medium (inherent to have a medium to operate the flowchart in fig.1 and other algorithms, see ¶1.7)" and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claims 12-17 and 20, they are claims corresponding to claims 2-7 & 10, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claims 18, 19, 28, 29, and 30, they are claims corresponding to claims 8, 9, 8, 9, & 10, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claims 22-27, they are claims corresponding to claims 2-7, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claim 31, Lee discloses, "wherein the at least one integrated transceiver utilizes a single protocol stack for processing the communication signal for the 802.11a, 802.11b, and 802.11g protocols (see ¶.11), but lacks what Schmidt discloses, "Bluetooth protocol (col.1, ln.31)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include Bluetooth protocol taught by Schmidt into the stack of Lee in order to provide more options clients looking Bluetooth technology which is available at the time of invention.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 11, and 21 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Edan Orgad/  
Supervisory Patent Examiner, Art Unit 2619

Jung Park  
Patent Examiner